Washington State Institute for Public Policy

General Prevention Benefit-Cost Results

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our technical manual.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

Youth mentoring programs (taxpayer costs only)

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Youth mentoring programs include school- and community-based programs such as Big Brothers/Big Sisters. A typical program matches an adult volunteer with a middle school-aged at-risk youth to meet one to four times per month for activities and guidance. This set of results includes our estimates for taxpayer costs only (and excludes the cost of volunteer time).

Benefit-Cost Summary

Program benefits	
Participants	$7,323
Taxpayers	$4,551
Other	$4,649
Other indirect	$0
Total	$16,522
Costs	($1,480)
Benefits minus cost	$15,042

Summary statistics	
Benefit to cost ratio	$11.30
Benefits minus costs	$15,042
Probability of a positive net present value	100 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

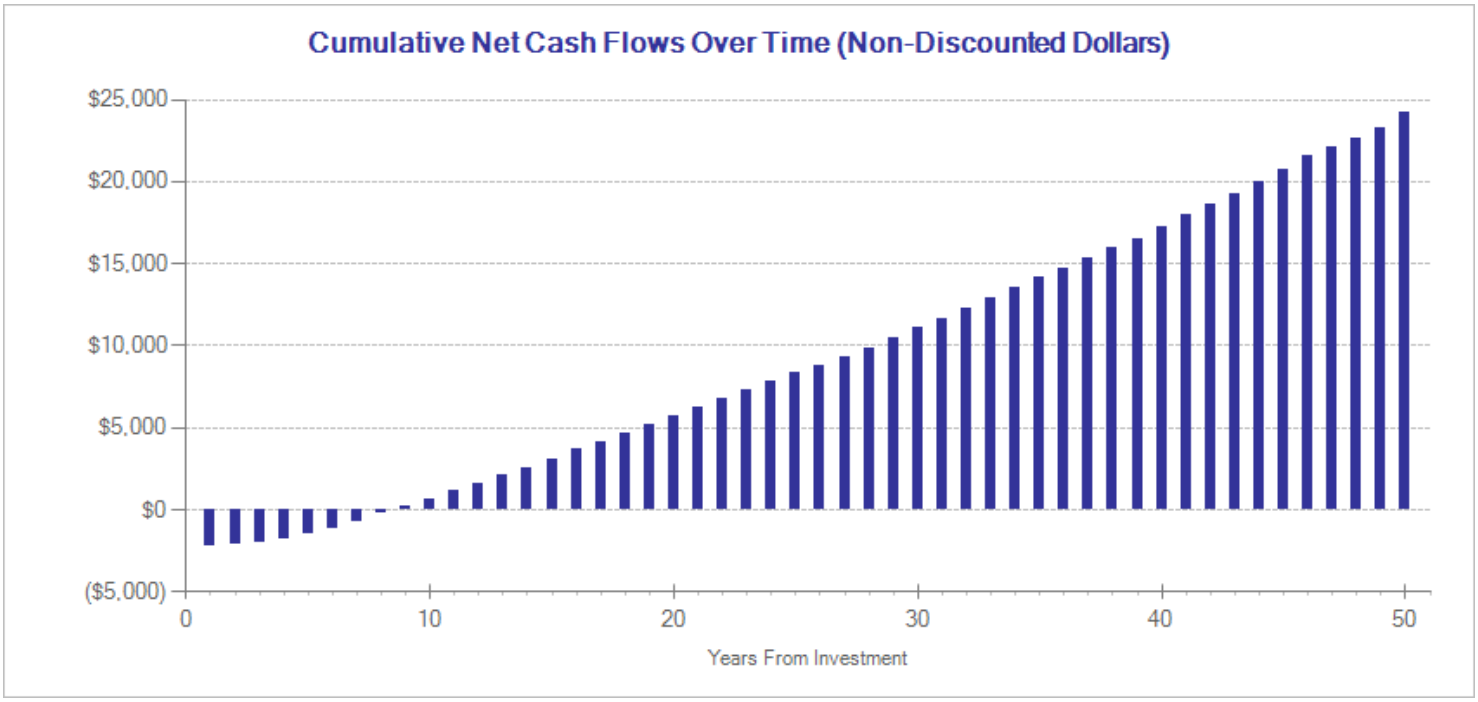
Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$498	$1,690	$0	$2,188
Labor market earnings (hs grad)	$7,442	$3,174	$3,642	$0	$14,259
Property loss (alcohol abuse/dependence)	($3)	$0	($5)	$0	($8)
Health care (educational attainment)	($117)	$879	($678)	$0	$84
Totals	$7,323	$4,551	$4,649	$0	$16,522

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$1,000	1	1992	Present value of net program costs (in 2012 dollars)	($1,480)
Comparison costs	$0	1	1992	Uncertainty (+ or - %)	20 %

Cost estimates are based on Institute estimates derived from the Big Brothers/Big Sisters program, as described in J.B. Grossman and J.P. Tierney (1998). Does mentoring work? An impact study of the Big Brothers Big Sisters Program. Evaluation Review, 22(3): 403-426. Excluding the cost of using volunteers, the taxpayer-only cost was approximately $1,000 in 1992.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.071	0.064	0.270	-0.071	0.064	14	-0.071	0.064	24
High school graduation	Primary	2	0.283	0.379	0.270	0.092	0.379	18	0.092	0.379	18
Age of initiation (alcohol)	Primary	1	0.406	0.143	0.000	0.406	0.143	14	0.406	0.143	24
Age of initiation (illicit drugs)	Primary	1	0.252	0.093	0.000	0.252	0.093	14	0.252	0.093	24
Grade point average	Primary	9	0.151	0.077	0.049	0.104	0.077	14	0.104	0.077	17

Good Behavior Game

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: The Good Behavior Game is a 2-year classroom management strategy designed to improve aggressive/disruptive classroom behavior and prevent later criminality. The program is universal and can be applied to general populations of early elementary school children (grades 1 and 2).

Benefit-Cost Summary

Program benefits	
Participants	$4,545
Taxpayers	$3,594
Other	$4,194
Other indirect	$873
Total	$13,206
Costs	($156)
Benefits minus cost	$13,050

Summary statistics	
Benefit to cost ratio	$84.63
Benefits minus costs	$13,050
Probability of a positive net present value	92 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

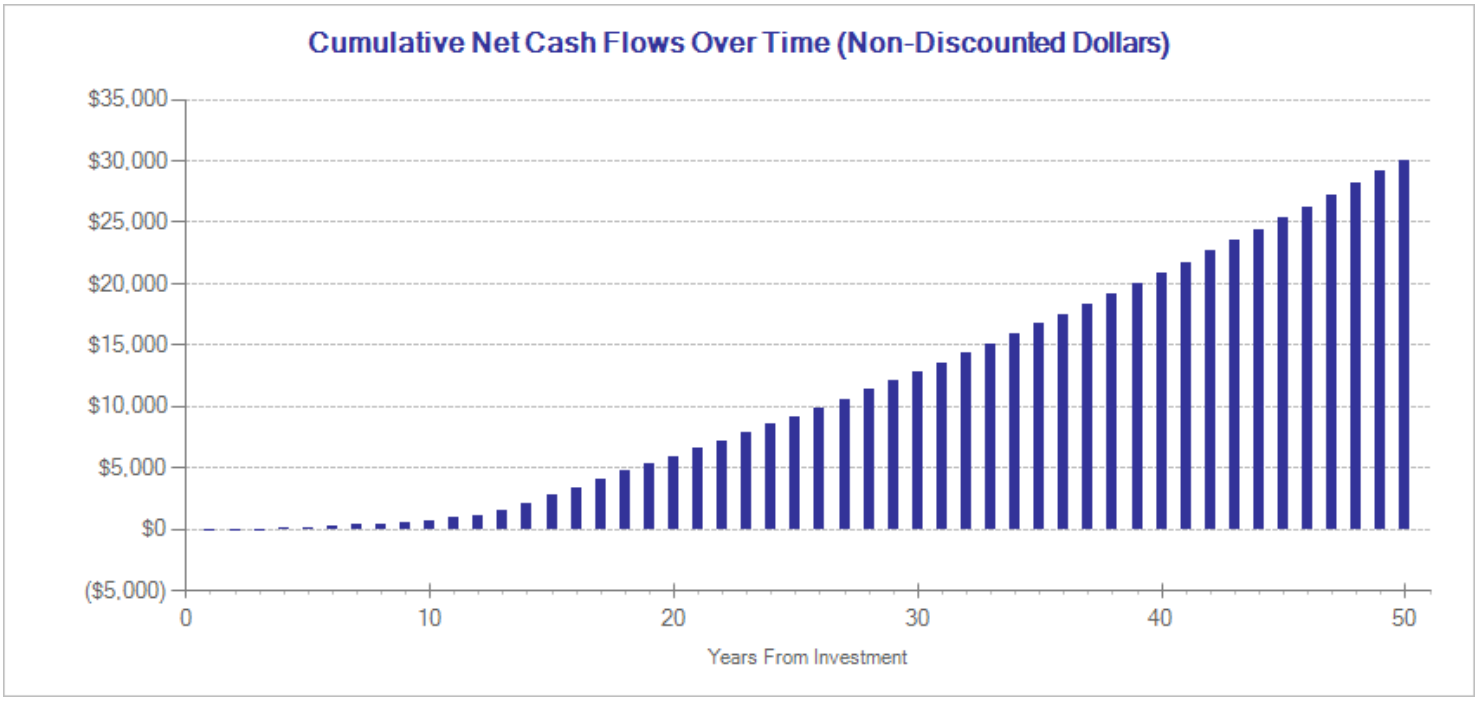
Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$191	$532	$95	$818
Labor market earnings (hs grad)	$3,972	$1,694	$1,969	$0	$7,636
Property loss (alcohol abuse/dependence)	$7	$0	$13	$0	$20
Health care (anxiety disorder)	$565	$1,708	$1,680	$856	$4,810
Adjustment for deadweight cost of program	$0	$0	$0	($78)	($78)
Totals	$4,545	$3,594	$4,194	$873	$13,206

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$78	2	2011	Present value of net program costs (in 2012 dollars)	($156)
Comparison costs	$0	1	2011	Uncertainty (+ or - %)	10 %

Costs include teacher training, classroom supplies, district GBG coach training, subcontractor support, and travel costs. The estimate is based on training for 30 teachers and one coach over two years and a cumulative 3,375 students served in GBG classrooms over five years. Information for this costs estimate was provided by Jeanne Poduska, Sc D, American Institutes for Research.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.113	0.102	0.267	-0.056	0.102	20	-0.056	0.102	30
High school graduation	Primary	1	0.162	0.090	0.070	0.081	0.090	20	0.081	0.090	30
Age of initiation (tobacco)	Primary	2	-0.232	0.074	0.002	-0.087	0.074	12	-0.087	0.074	22
Regular smoking	Primary	1	-0.567	0.306	0.064	-0.283	0.306	20	-0.283	0.306	30
Alcohol abuse or dependence	Primary	1	-0.413	0.166	0.011	-0.212	0.166	20	-0.212	0.166	30
Major depressive disorder	Primary	2	-0.222	0.084	0.008	-0.208	0.084	20	-0.087	0.035	25
Illicit drug abuse or dependence	Primary	1	-0.321	0.090	0.000	-0.161	0.090	20	-0.161	0.090	30
Anxiety disorder	Primary	2	-0.236	0.092	0.011	-0.236	0.092	20	-0.099	0.039	25
Externalizing behavior symptoms	Primary	2	-0.312	0.066	0.000	-0.254	0.066	12	-0.107	0.028	17
Suicide attempts	Primary	1	-0.451	0.179	0.012	-0.225	0.179	20	-0.225	0.179	25
Antisocial personality disorder	Primary	1	-0.295	0.137	0.032	-0.147	0.137	20	-0.062	0.058	25

Guiding Good Choices (formerly Preparing for the Drug Free Years)

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Guiding Good Choices (formerly Preparing for the Drug Free Years) is a family-focused program designed to improve parenting skills. The five-session program for families with 6th-graders improves parenting techniques and family bonding and teaches children resistance skills.

Benefit-Cost Summary

Program benefits	
Participants	$3,900
Taxpayers	$2,344
Other	$1,909
Other indirect	($107)
Total	$8,046
Costs	($905)
Benefits minus cost	$7,141

Summary statistics	
Benefit to cost ratio	$8.93
Benefits minus costs	$7,141
Probability of a positive net present value	96 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$754	$2,251	$377	$3,382
Health care (smoking)	$63	$90	$95	$45	$292
Labor market earnings (alcohol abuse/dependence)	$3,873	$1,652	$0	$3	$5,527
Property loss (alcohol abuse/dependence)	$2	$0	$4	$0	$6
Adjustment for deadweight cost of program	($38)	($151)	($441)	($532)	($1,162)
Totals	$3,900	$2,344	$1,909	($107)	$8,046

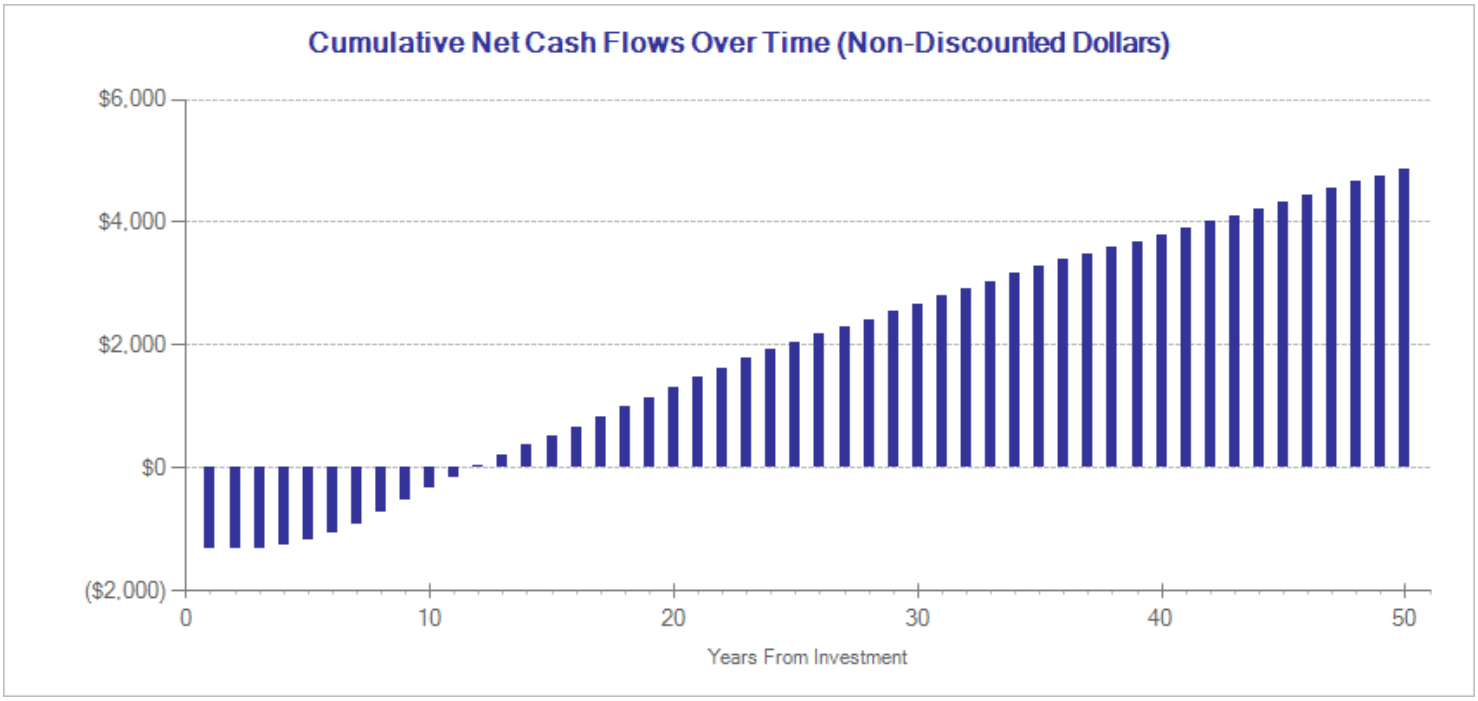
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$896	1	2012
Comparison costs	$0	1	2012

Summary statistics	
Present value of net program costs (in 2012 dollars)	($905)
Uncertainty (+ or - %)	10 %

Channing Bete Corporation, (website)

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.190	0.170	0.050	-0.189	0.170	16	-0.189	0.170	26
Internalizing symptoms	Primary	1	-0.237	0.180	0.000	-0.237	0.180	16	-0.237	0.180	18
Alcohol use in high school	Primary	1	-0.256	0.118	0.000	-0.256	0.118	16	-0.256	0.118	18
Smoking in high school	Primary	1	-0.187	0.138	0.000	-0.187	0.138	16	-0.187	0.138	18
Cannabis use in high school	Primary	1	-0.305	0.208	0.000	-0.305	0.208	16	-0.305	0.208	18

Quantum Opportunities Program

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: The Quantum Opportunities Program provides disadvantaged high school students education, service, and development activities, as well as financial incentives (stipends) for youths' continuing participation. Mentoring is one component of the services provided. The program begins in ninth grade and continues through students' high school graduation.

Benefit-Cost Summary

Program benefits	
Participants	$23,668
Taxpayers	$10,470
Other	$9,450
Other indirect	($11,792)
Total	$31,797
Costs	($26,455)
Benefits minus cost	$5,341

Summary statistics	
Benefit to cost ratio	$1.22
Benefits minus costs	$5,341
Probability of a positive net present value	59 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

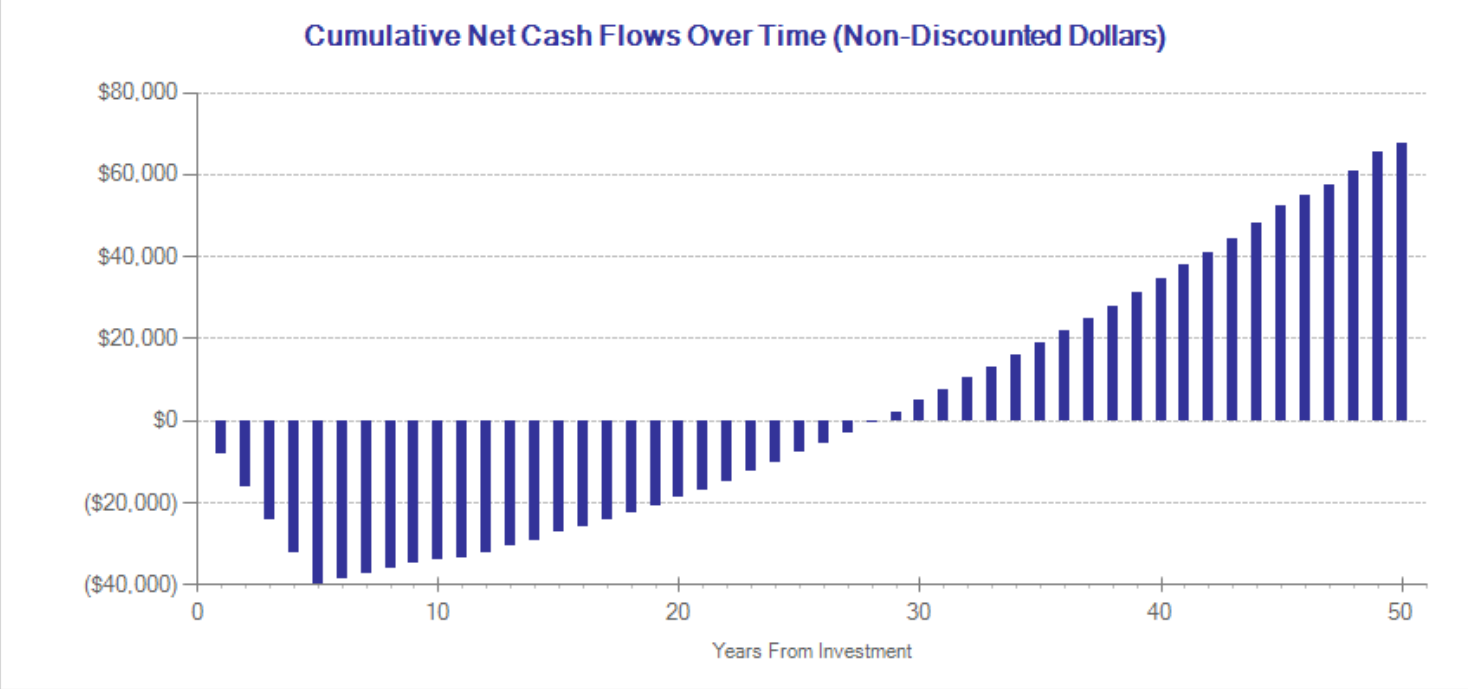
Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	($169)	$67	($79)	($181)
Labor market earnings (hs grad)	$23,199	$9,895	$11,491	$0	$44,586
Public assistance	$715	($2,267)	$0	$0	($1,552)
Health care (educational attainment)	($377)	$2,928	($2,193)	$1,469	$1,827
Subtotals	$23,538	$10,387	$9,365	$1,390	$44,679
From secondary participant					
Crime	$0	$12	$36	$6	$54
Labor market earnings (hs grad)	$122	$52	$61	$0	$235
Child abuse and neglect	$10	$2	$0	$1	$13
K-12 grade repetition	$0	$2	$0	$1	$3
Health care (educational attainment)	($2)	$15	($11)	$7	$9
Subtotals	$130	$84	$85	$16	$315
Adjustment for deadweight cost of program	$0	$0	$0	($13,198)	($13,198)
Totals	$23,668	$10,470	$9,450	($11,792)	$31,797

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$5,000	5	2006	Present value of net program costs (in 2012 dollars)	($26,455)
Comparison costs	$0	1	2006	Uncertainty (+ or - %)	30 %

Average cost per youth is $25,000 for five years. We put a 30% uncertainty estimate around this figure because the average costs vary widely by site. Maxfield, M., Schirm, A., & Rodriguez-Planas, N. (2003). The Quantum Opportunity Program demonstration: Implementation and short-term impacts (Document No. PR03-18). Princeton, NJ: Mathematica Policy Research, p. 12.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	2	-0.337	0.431	0.434	-0.255	0.431	20	0.379	0.062	24
High school graduation	Primary	3	0.324	0.141	0.022	0.299	0.141	17	0.299	0.141	17
Public assistance	Primary	3	0.034	0.372	0.927	0.070	0.372	24	0.070	0.372	34
Teen births under age 18	Primary	2	-0.118	0.240	0.623	-0.118	0.240	18	-0.118	0.240	18
Teen births (second generation)	Secondary	2	-0.118	0.240	0.623	-0.118	0.240	18	-0.118	0.240	18

Youth mentoring programs

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Youth mentoring programs include school- and community-based programs such as Big Brothers/Big Sisters. A typical program matches an adult volunteer with a middle school-aged at-risk youth to meet one to four times per month for activities and guidance. This set of results includes our estimates for the cost of volunteer time.

Benefit-Cost Summary

Program benefits	
Participants	$4,495
Taxpayers	$3,075
Other	$3,592
Other indirect	($1,884)
Total	$9,278
Costs	($4,885)
Benefits minus cost	$4,393

Summary statistics	
Benefit to cost ratio	$1.92
Benefits minus costs	$4,393
Probability of a positive net present value	57 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$527	$1,825	$263	$2,615
Labor market earnings (hs grad)	$7,559	$3,224	$3,990	$0	$14,773
Property loss (alcohol abuse/dependence)	($3)	$0	($5)	$0	($8)
Health care (educational attainment)	($124)	$954	($722)	$477	$585
Adjustment for deadweight cost of program	($2,938)	($1,630)	($1,495)	($2,625)	($8,688)
Totals	$4,495	$3,075	$3,592	($1,884)	$9,278

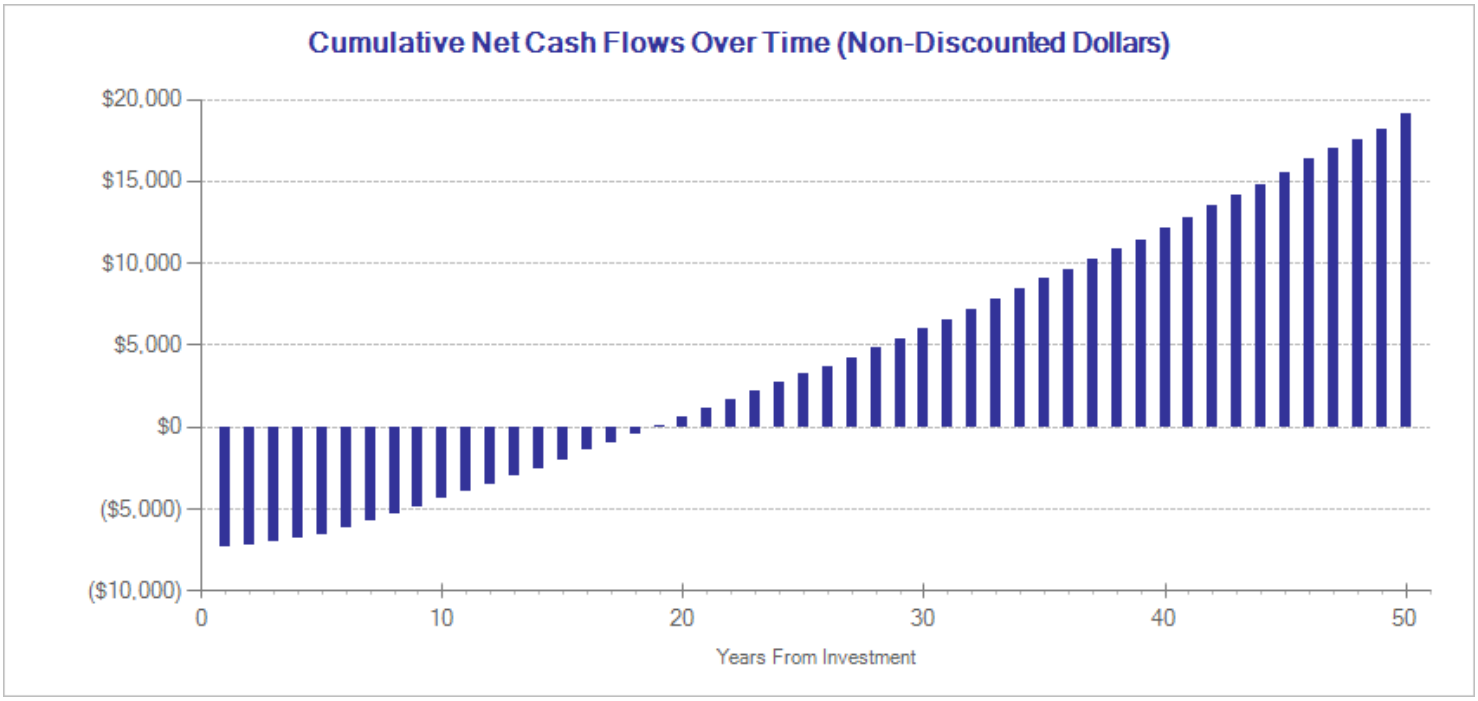
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$3,245	1	1992
Comparison costs	$0	1	1992

Summary statistics	
Present value of net program costs (in 2012 dollars)	($4,885)
Uncertainty (+ or - %)	20 %

Cost estimates are based on Institute estimates derived from the Big Brothers/Big Sisters program, as described in J.B. Grossman and J.P. Tierney (1998). Does mentoring work? An impact study of the Big Brothers Big Sisters Program. Evaluation Review, 22(3): 403-426. Excluding the cost of using volunteers, the taxpayer-only cost was approximately $1,000 in 1992.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.071	0.064	0.270	-0.071	0.064	14	-0.071	0.064	24
High school graduation	Primary	2	0.283	0.379	0.270	0.092	0.379	17	0.092	0.379	17
Age of initiation (alcohol)	Primary	1	0.406	0.143	0.000	0.406	0.143	14	0.406	0.143	24
Age of initiation (illicit drugs)	Primary	1	0.252	0.093	0.008	0.252	0.093	14	0.252	0.093	24
Grade point average	Primary	9	0.151	0.077	0.049	0.104	0.077	14	0.104	0.077	17

Seattle Social Development Project

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: The Seattle Social Development Project (SSDP) targets youth in grades 1 to 6 to increase bonding to school and family as a protective measure against school failure, delinquency, drug abuse, teen pregnancy, and violence. The SSDP is a school-based program with annual teacher training in communication, effective classroom management, and cooperative learning. The program also includes child skill development in communication, negotiation, conflict resolution, and refusal skills. Parents are trained in behavior management, academic support, and skills to reduce risks for drug use.

Benefit-Cost Summary

Program benefits	
Participants	$3,910
Taxpayers	$2,197
Other	$2,008
Other indirect	($1,148)
Total	$6,967
Costs	($3,086)
Benefits minus cost	$3,882

Summary statistics	
Benefit to cost ratio	$2.25
Benefits minus costs	$3,882
Probability of a positive net present value	59 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

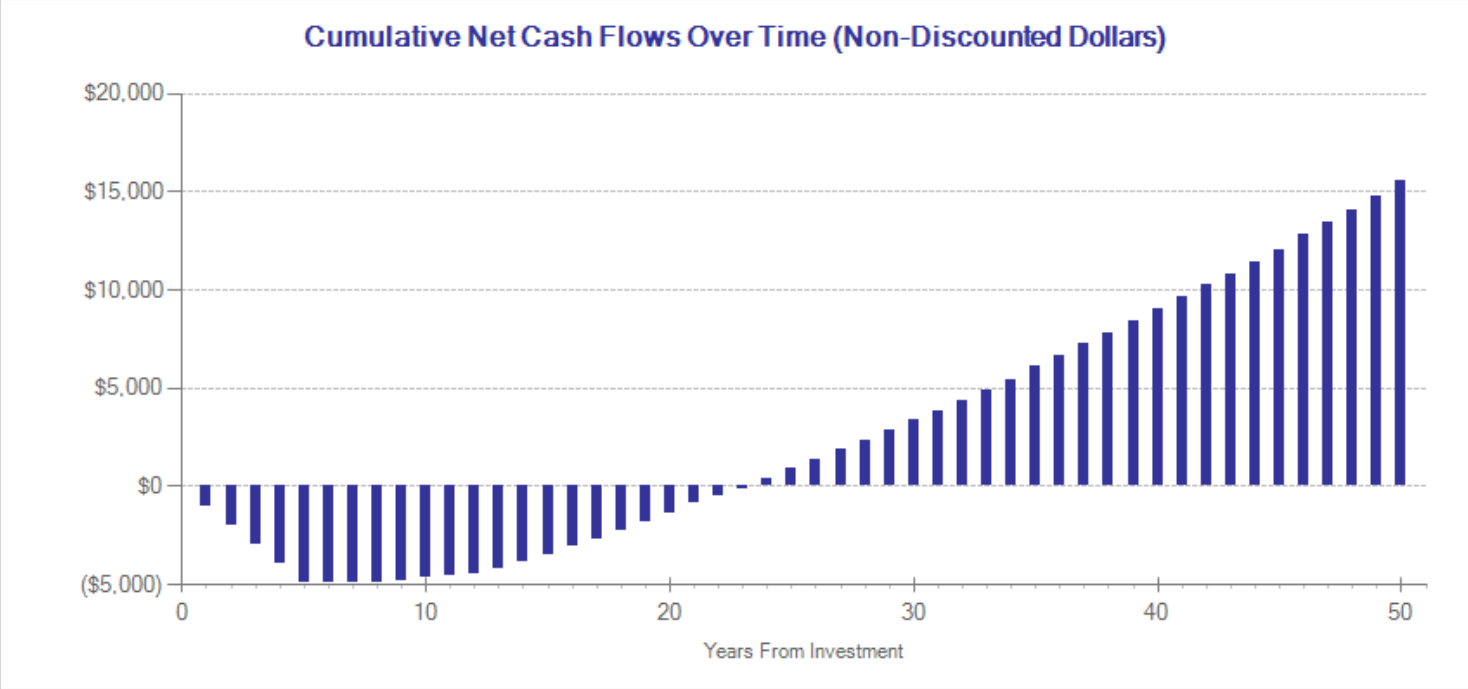
Source of benefits	Benefits to Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$168	$477	$82	$727
Labor market earnings (hs grad)	$3,846	$1,640	$1,910	$0	$7,396
K-12 grade repetition	$0	$59	$0	$29	$88
Public assistance	$80	($253)	$0	$0	($173)
Health care (educational attainment)	($70)	$551	($410)	$272	$342
Subtotals	$3,855	$2,165	$1,977	$383	$8,380
From secondary participant					
Crime	$0	$4	$9	$2	$15
Labor market earnings (hs grad)	$52	$22	$26	$0	$100
Child abuse and neglect	$3	$1	$0	$0	$4
K-12 grade repetition	$0	$1	$0	$0	$1
Health care (educational attainment)	($1)	$5	($4)	$2	$3
Subtotals	$54	$32	$32	$5	$123
Adjustment for deadweight cost of program	$0	$0	$0	($1,536)	($1,536)
Totals	$3,910	$2,197	$2,008	($1,148)	$6,967

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$499	5	1999	Present value of net program costs (in 2012 dollars)	($3,086)
Comparison costs	$0	1	1999	Uncertainty (+ or - %)	10 %

Hawkins JD, Catalano RF et al. 1999, Prevention of Adolescent Health-Risk Behaviors, p. 234.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.214	0.160	0.000	-0.054	0.160	19	-0.054	0.160	29
High school graduation	Primary	1	0.255	0.159	0.000	0.064	0.159	19	0.064	0.159	19
K-12 grade repetition	Primary	1	-0.355	0.175	0.000	-0.089	0.175	16	-0.089	0.175	17
Teen pregnancy (under age 18)	Primary	1	-0.335	0.163	0.000	-0.084	0.163	19	-0.084	0.163	29
Initiation of sexual activity	Primary	1	-0.385	0.158	0.000	-0.096	0.158	19	-0.096	0.158	29
Teen births under age 18	Primary	1	-0.300	0.207	0.000	-0.075	0.207	19	-0.075	0.207	29
Problem alcohol use	Primary	1	-0.030	0.146	0.000	-0.008	0.146	19	-0.008	0.146	29
Teen births (second generation)	Secondary	1	-0.230	0.207	0.000	-0.075	0.207	19	-0.075	0.207	29

Communities That Care

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Communities that Care (CTC) is a coalition-based community prevention program that aims to prevent youth problem behaviors including underage drinking, tobacco use, violence, delinquency, school dropout and substance abuse. CTC works through a community board to assess risk and protective factors among the youth in their community. The board works to implement tested and effective programs to address the issues and needs that are identified.

Benefit-Cost Summary

Program benefits	
Participants	$513
Taxpayers	$577
Other	$1,083
Other indirect	($108)
Total	$2,066
Costs	($572)
Benefits minus cost	$1,494

Summary statistics	
Benefit to cost ratio	$3.69
Benefits minus costs	$1,494
Probability of a positive net present value	92 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$288	$874	$145	$1,308
Labor market earnings (hs grad)	$522	$222	$258	$0	$1,002
Property loss (alcohol abuse/dependence)	$0	$0	$0	$0	$0
Health care (educational attainment)	($9)	$67	($50)	$33	$42
Adjustment for deadweight cost of program	$0	$0	$0	($286)	($286)
Totals	$513	$577	$1,083	($108)	$2,066

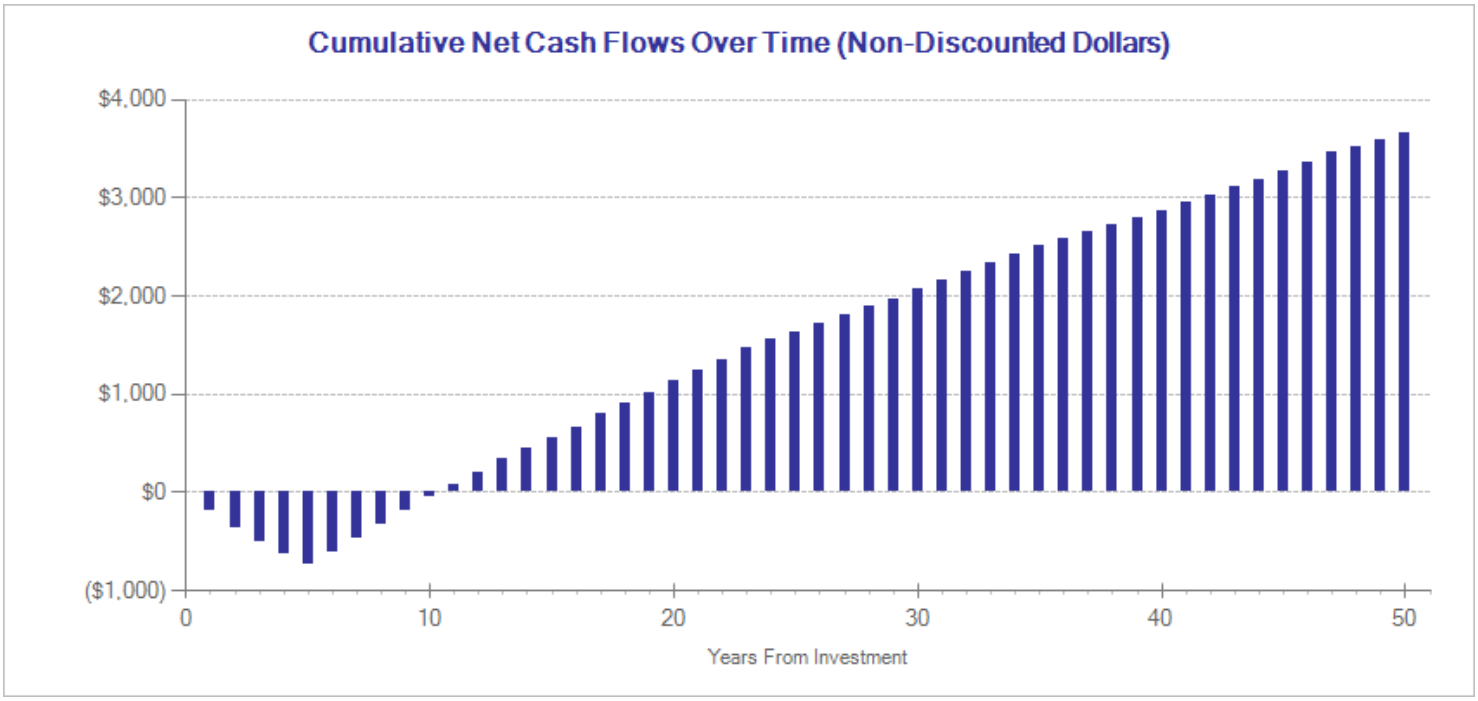
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$103	5	2004
Comparison costs	$0	1	2004

Summary statistics	
Present value of net program costs (in 2012 dollars)	($572)
Uncertainty (+ or - %)	35 %

Weighted average of per-child costs across twelve CtC demonstration communities. Provided by M. Kuklinski, Social Development Research Group, January 2013.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.134	0.042	0.000	-0.067	0.042	16	-0.067	0.042	26
Age of initiation (tobacco)	Primary	1	0.092	0.039	0.000	0.046	0.039	16	0.046	0.039	26
Age of initiation (cannabis)	Primary	1	0.040	0.039	0.000	0.020	0.039	16	0.020	0.039	26
Age of initiation (alcohol)	Primary	1	0.150	0.045	0.000	0.075	0.045	16	0.075	0.045	26
Age of initiation (illicit drugs)	Primary	1	0.039	0.039	0.000	0.020	0.039	16	0.020	0.039	26

Behavioral Monitoring and Reinforcement Program (BMRP)

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: This is a school-based intervention that aims to prevent juvenile delinquency, substance use, and school failure for high-risk adolescents. For two years, beginning in seventh grade, participants' school records are monitored for attendance, tardiness, and disciplinary action. Program staff contact parents by letter, phone, and occasional home visits to inform them of their children's progress. Teachers submit weekly reports assessing students' punctuality, preparedness, and behavior in the classroom, and students are rewarded for good evaluations. Each week, 3-5 students meet with a staff member to discuss their recent behaviors and their consequences, and role-play prosocial alternatives to problem behaviors.

Benefit-Cost Summary

Program benefits	
Participants	$401
Taxpayers	$480
Other	$918
Other indirect	($501)
Total	$1,299
Costs	($1,301)
Benefits minus cost	($2)

Summary statistics	
Benefit to cost ratio	$0.99
Benefits minus costs	($2)
Probability of a positive net present value	55 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$255	$756	$124	$1,135
Labor market earnings (hs grad)	$408	$174	$201	$0	$783
Health care (educational attainment)	($7)	$51	($38)	$25	$31
Adjustment for deadweight cost of program	$0	$0	$0	($650)	($650)
Totals	$401	$480	$918	($501)	$1,299

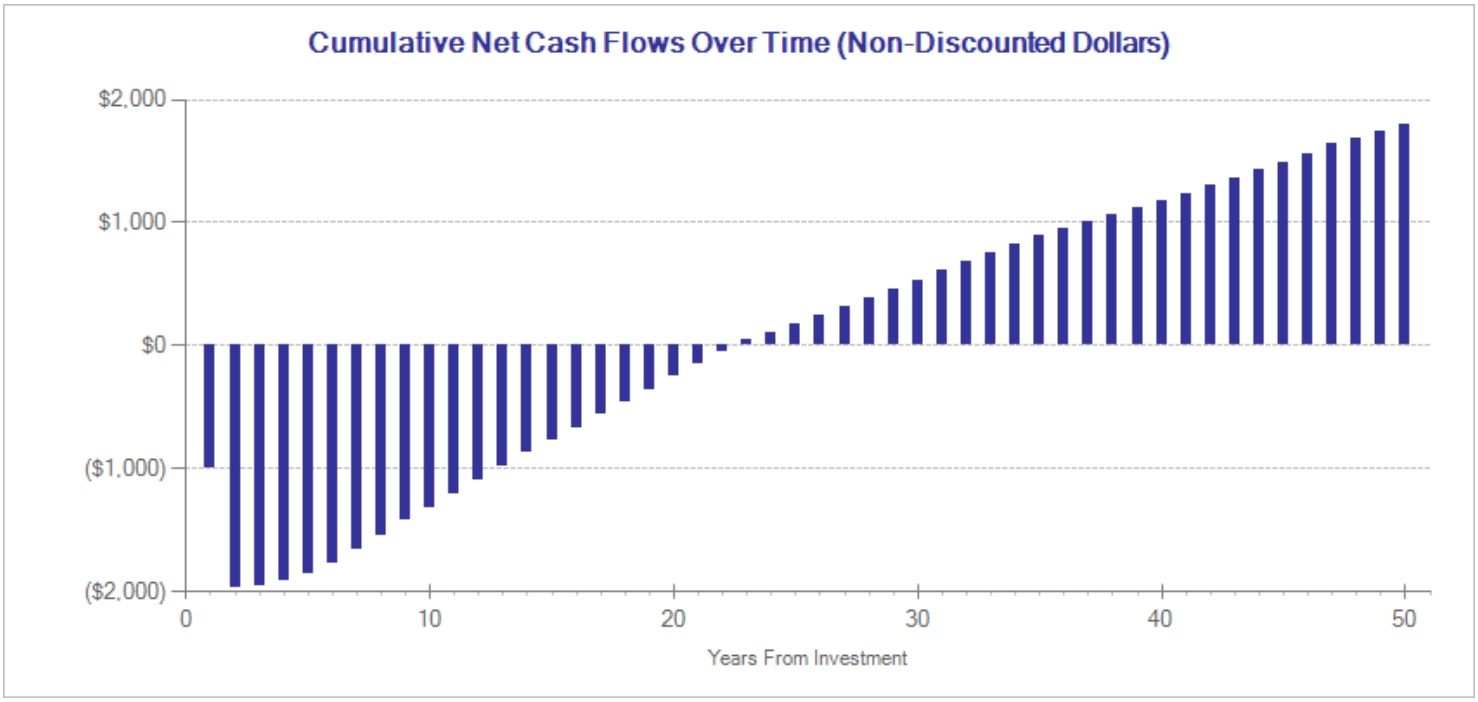
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$500	2	1999
Comparison costs	$0	2	1999

Summary statistics	
Present value of net program costs (in 2012 dollars)	($1,301)
Uncertainty (+ or - %)	10 %

$ in 2002 dollars (Miller and Hendrie 2005)

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.561	0.317	0.100	-0.105	0.317	16	-0.105	0.317	26
Employment	Primary	1	0.709	0.355	0.128	0.266	0.355	16	0.266	0.355	26
Truancy	Primary	4	0.699	0.699	0.182	-0.336	0.699	16	-0.336	0.699	17
Grade point average	Primary	3	0.786	0.252	0.002	0.416	0.252	16	0.416	0.252	17

Promoting Alternative Thinking Strategies (PATHS)

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: The PATHS Curriculum is a classroom socioemotional learning (SEL) program designed to improve self-control, emotional understanding, interpersonal relationships, and social problem-solving skills. We consider PATHS to be a prevention program based on the assumption that when SEL skills taught in this program are applied, serious emotional and behavioral problems are prevented.

Benefit-Cost Summary

Program benefits	
Participants	($1)
Taxpayers	($4)
Other	($4)
Other indirect	($61)
Total	($70)
Costs	($117)
Benefits minus cost	($187)

Summary statistics	
Benefit to cost ratio	($0.60)
Benefits minus costs	($187)
Probability of a positive net present value	18 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Health care (disruptive behavior disorder)	($1)	($4)	($4)	($2)	($11)
Adjustment for deadweight cost of program	$0	$0	$0	($59)	($59)
Totals	($1)	($4)	($4)	($61)	($70)

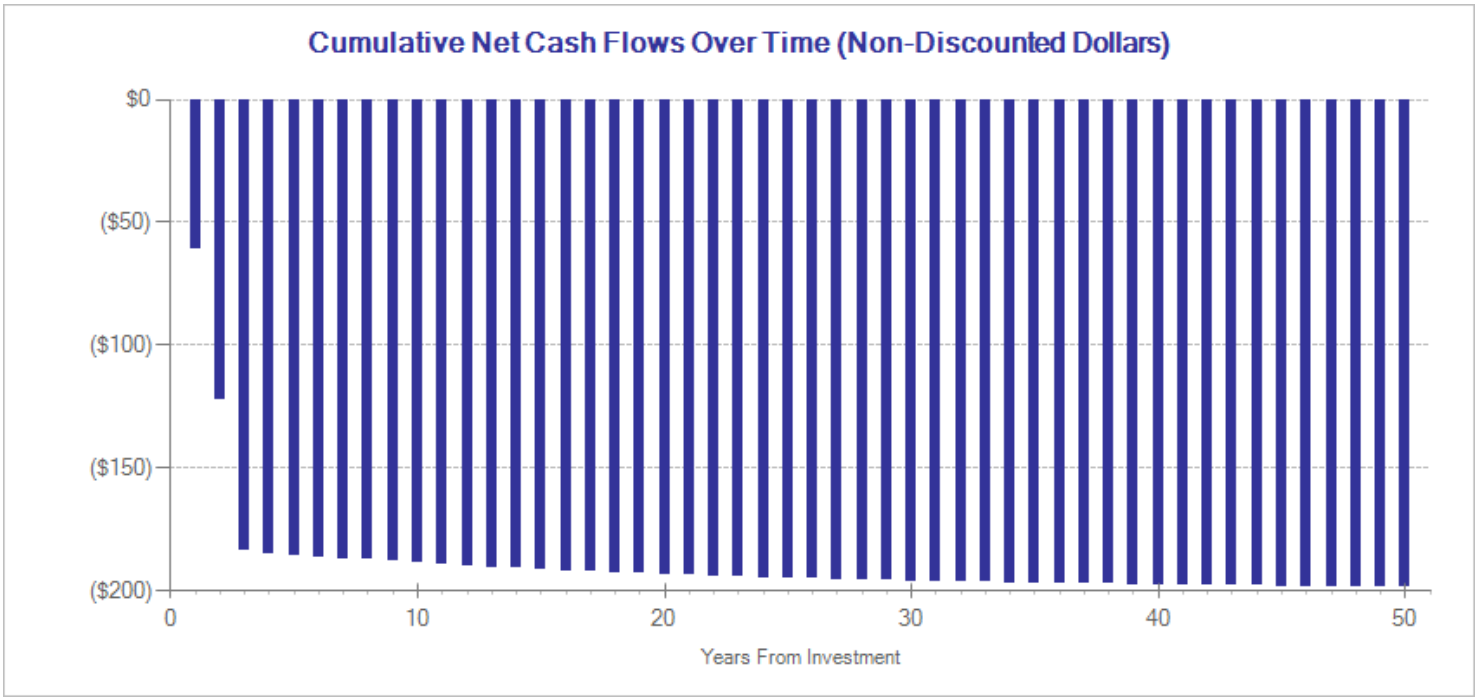
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$30	3	1998
Comparison costs	$0	3	1998

Summary statistics	
Present value of net program costs (in 2012 dollars)	($117)
Uncertainty (+ or - %)	10 %

Based on midpoint of annual per-student costs from Blueprints for Violence Prevention: http://www.colorado.edu/cspv/blueprints/modelprograms/PATHS.html.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Externalizing behavior symptoms	Primary	4	-0.045	0.135	0.737	0.002	0.135	7	0.001	0.057	12
Internalizing symptoms	Primary	3	-0.057	0.116	0.625	0.002	0.116	7	0.001	0.049	12

Strengthening Families for Parents and Youth 10-14

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Strengthening Families for Parents and Youth 10-14 (also known as the Iowa Strengthening Families Program) is a family-based program that attempts to reduce behavior problems and substance use by enhancing parenting skills, parent-child relationships, and family communication. The seven-week intervention is designed for 6th-grade students and their families.

Benefit-Cost Summary

Program benefits	
Participants	$377
Taxpayers	$306
Other	$186
Other indirect	($459)
Total	$410
Costs	($1,099)
Benefits minus cost	($690)

Summary statistics	
Benefit to cost ratio	$0.37
Benefits minus costs	($690)
Probability of a positive net present value	12 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

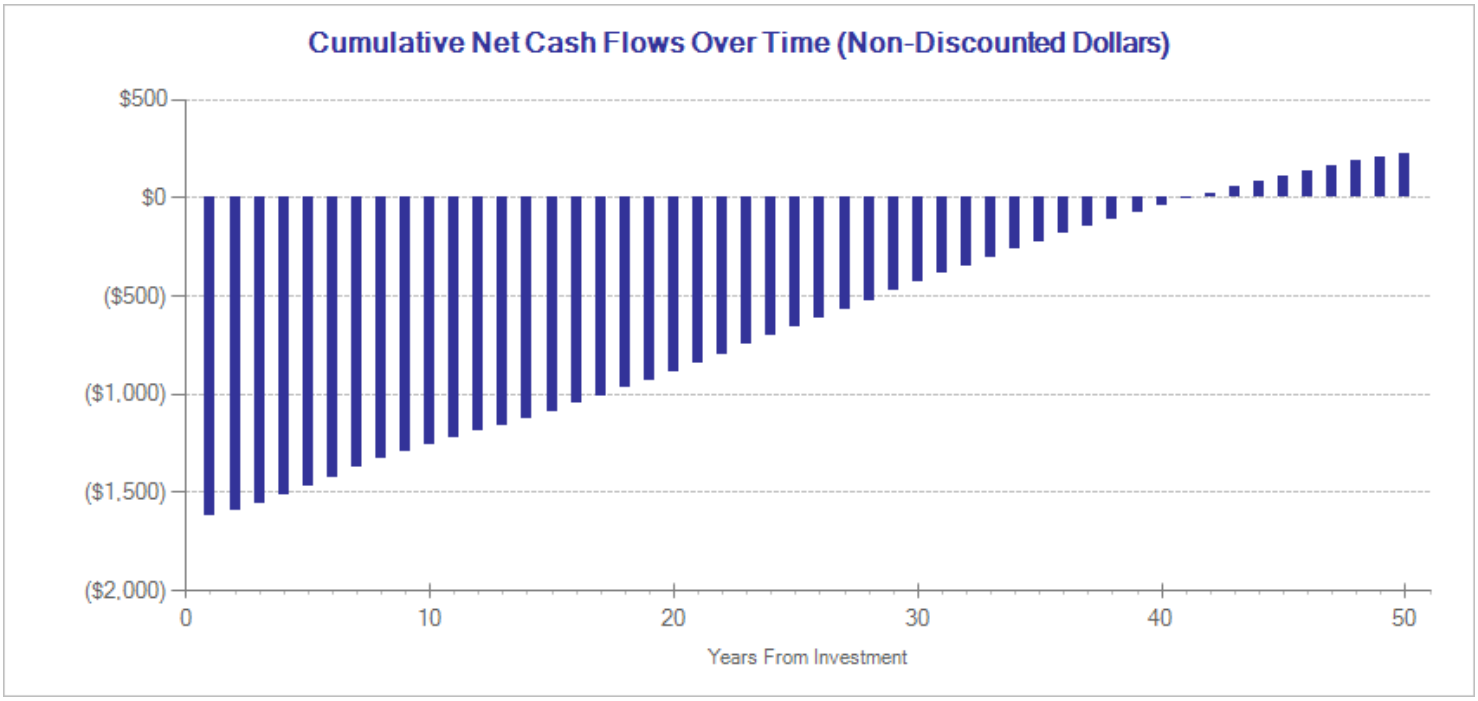
Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$9	$27	$4	$40
Labor market earnings (alcohol abuse/dependence)	$323	$138	$0	$6	$467
Property loss (alcohol abuse/dependence)	$1	$0	$2	$0	$2
Health care (disruptive behavior disorder)	$53	$160	$157	$80	$449
Adjustment for deadweight cost of program	$0	$0	$0	($549)	($549)
Totals	$377	$306	$186	($459)	$410

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$880	1	2002	Present value of net program costs (in 2012 dollars)	($1,099)
Comparison costs	$0	1	2002	Uncertainty (+ or - %)	10 %

$880 per family (Miller and Hendrie 2005).

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Age of initiation (tobacco)	Primary	1	0.400	0.094	0.000	0.360	0.094	15	0.360	0.094	25
Age of initiation (cannabis)	Primary	1	0.396	0.158	0.012	0.352	0.158	15	0.352	0.158	25
Age of initiation (alcohol)	Primary	1	0.370	0.098	0.000	0.370	0.098	15	0.370	0.098	25
Disruptive behavior disorder symptoms	Primary	1	-0.250	0.115	0.030	-0.250	0.115	15	-0.105	0.049	25

CASASTART

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Formerly known as Children at Risk, CASASTART targets youth aged 11 to 13 in high-risk neighborhoods. Using case management, after-school activities, and law enforcement, the program attempts to decrease individual, family, and community risk factors while promoting positive behavior such as school performance and prosocial activities.

Benefit-Cost Summary

Program benefits	
Participants	$93
Taxpayers	($248)
Other	($858)
Other indirect	($3,611)
Total	($4,624)
Costs	($6,940)
Benefits minus cost	($11,564)

Summary statistics	
Benefit to cost ratio	($0.67)
Benefits minus costs	($11,564)
Probability of a positive net present value	0 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

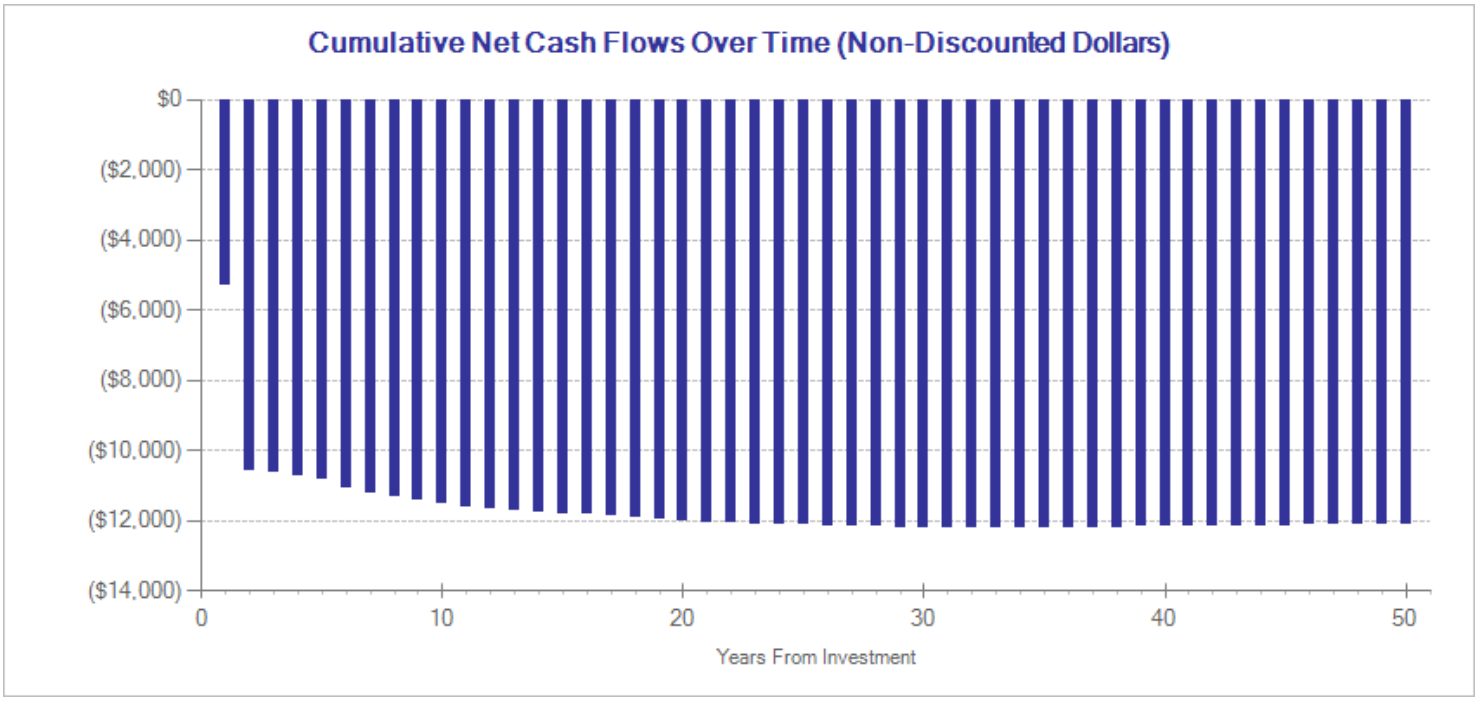
Source of benefits	Benefits to Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	($251)	($862)	($126)	($1,239)
K-12 grade repetition	$0	($40)	$0	($20)	($60)
Labor market earnings (alcohol abuse/dependence)	$90	$38	$0	$2	$130
Property loss (alcohol abuse/dependence)	$0	$0	$0	$0	$1
Health care (illicit drug abuse/dependence)	$3	$4	$4	$2	$14
Adjustment for deadweight cost of program	$0	$0	$0	($3,468)	($3,468)
Totals	$93	($248)	($858)	($3,611)	($4,624)

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$2,825	2	2002	Present value of net program costs (in 2012 dollars)	($6,940)
Comparison costs	$0	2	2002	Uncertainty (+ or - %)	10 %

$2,825 per year for two years (Miller and Hendrie 2005).

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	2	0.041	0.120	0.837	0.031	0.120	14	0.031	0.120	24
K-12 grade repetition	Primary	2	0.041	0.120	0.837	0.031	0.120	14	0.031	0.120	24
Age of initiation (alcohol)	Primary	1	0.141	0.165	0.391	0.102	0.165	14	0.102	0.165	24
Age of initiation (illicit drugs)	Primary	1	0.297	0.090	0.001	0.223	0.090	14	0.223	0.090	24
Truancy	Primary	1	0.384	0.031	0.837	0.288	0.031	14	0.288	0.031	24
Illicit drug use	Primary	2	-0.074	0.212	0.733	-0.054	0.212	14	-0.054	0.212	24

Children's Aid Society--Carrera

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Children's Aid Society – Carrera Project provides after-school activities five days a week for teens 13 and older. Program activities include Job Club (students receive stipends and employment experience), academic assistance (available every day), classes in family life and sexuality, an arts component, and individual sports one could continue throughout life. In addition, the program provides mental health care, medical care, and full dental care.

Benefit-Cost Summary

Program benefits	
Participants	$6,398
Taxpayers	$2,962
Other	$587
Other indirect	($7,150)
Total	$2,797
Costs	($14,498)
Benefits minus cost	($11,702)

Summary statistics	
Benefit to cost ratio	$0.19
Benefits minus costs	($11,702)
Probability of a positive net present value	36 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	($617)	($2,034)	($307)	($2,958)
Labor market earnings (hs grad)	$6,425	$2,741	$3,173	$0	$12,339
Health care (educational attainment)	($102)	$792	($593)	$395	$493
Subtotals	$6,324	$2,916	$546	$88	$9,874
From secondary participant					
Crime	$0	$5	$13	$2	$19
Labor market earnings (hs grad)	$70	$30	$35	$0	$134
Child abuse and neglect	$6	$1	$0	$1	$8
K-12 grade repetition	$0	$1	$0	$1	$2
Health care (educational attainment)	($1)	$9	($6)	$4	$5
Subtotals	$74	$46	$41	$8	$169
Adjustment for deadweight cost of program	$0	$0	$0	($7,246)	($7,246)
Totals	$6,398	$2,962	$587	($7,150)	$2,797

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$4,000	3	2002	Present value of net program costs (in 2012 dollars)	($14,498)
Comparison costs	$0	1	2002	Uncertainty (+ or - %)	10 %

Phillber S et al. Preventing Pregnancy and Improving Health Care Access Among Teenagers: An Evaluation fo the Children's Aid Society-Carrera Program, 2002, Perspectives on Sexual and Reproductive Health, 34(5) page 251.

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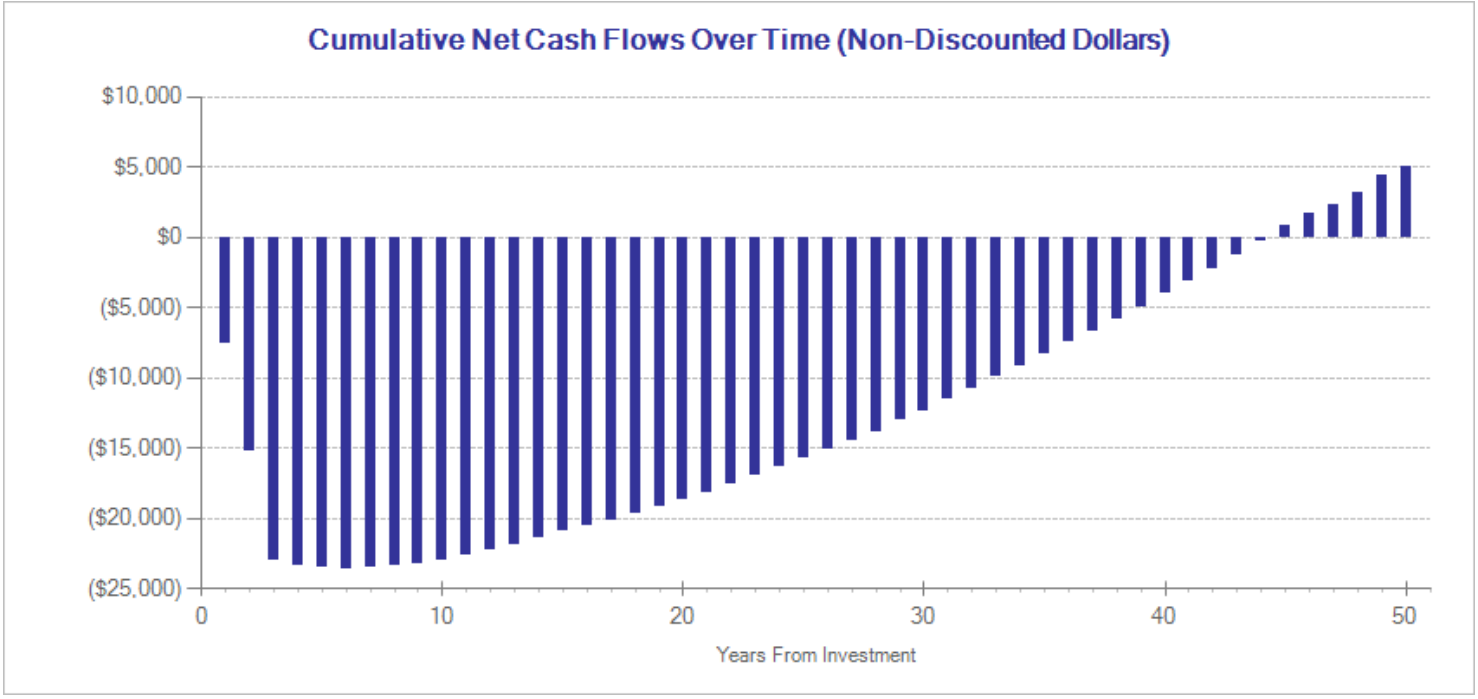

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.035	0.737	0.590	-0.035	0.737	17	-0.035	0.737	27
High school graduation	Primary	1	0.079	0.147	0.504	0.079	0.147	17	0.079	0.147	17
Teen pregnancy (under age 18)	Primary	1	-0.270	0.313	0.380	-0.270	0.313	17	-0.270	0.313	27
Initiation of sexual activity	Primary	1	-0.229	0.123	0.060	-0.229	0.123	17	-0.229	0.123	27
Teen births under age 18	Primary	1	-0.055	0.091	0.543	-0.055	0.091	17	-0.055	0.091	27
Problem alcohol use	Primary	1	-0.123	0.064	0.056	-0.123	0.064	17	-0.123	0.064	27
Teen births (second generation)	Secondary	1	-0.055	0.091	0.543	-0.055	0.091	17	-0.055	0.091	27

Fast Track prevention program

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: This is a comprehensive prevention program, delivered over the course of 10 years, that seeks to reduce multiple risk factors in children's lives (e.g., school, family). The program consists of various developmentally appropriate interventions at different ages, with the most intensive intervention taking place at younger ages.

Benefit-Cost Summary

Program benefits	
Participants	$523
Taxpayers	$572
Other	$1,239
Other indirect	($29,628)
Total	($27,294)
Costs	($59,812)
Benefits minus cost	($87,105)

Summary statistics	
Benefit to cost ratio	($0.46)
Benefits minus costs	($87,105)
Probability of a positive net present value	0 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$309	$943	$153	$1,405
Labor market earnings (hs grad)	$508	$217	$250	$0	$975
K-12 grade repetition	$0	$1	$0	$0	$1
Health care (disruptive behavior disorder)	$15	$46	$45	$23	$130
Adjustment for deadweight cost of program	$0	$0	$0	($29,805)	($29,805)
Totals	$523	$572	$1,239	($29,628)	($27,294)

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$5,828	10	2004
Comparison costs	$0	10	2004

Summary statistics	
Present value of net program costs (in 2012 dollars)	($59,812)
Uncertainty (+ or - %)	10 %

Costs derived from estimate reported in Foster, E.M., Jones, D.E., & the Conduct Problems Prevention Research Group (2006). Can a costly intervention be cost-effective? An analysis of violence prevention. Archives of General Psychiatry, 63(11), 1284-1291.

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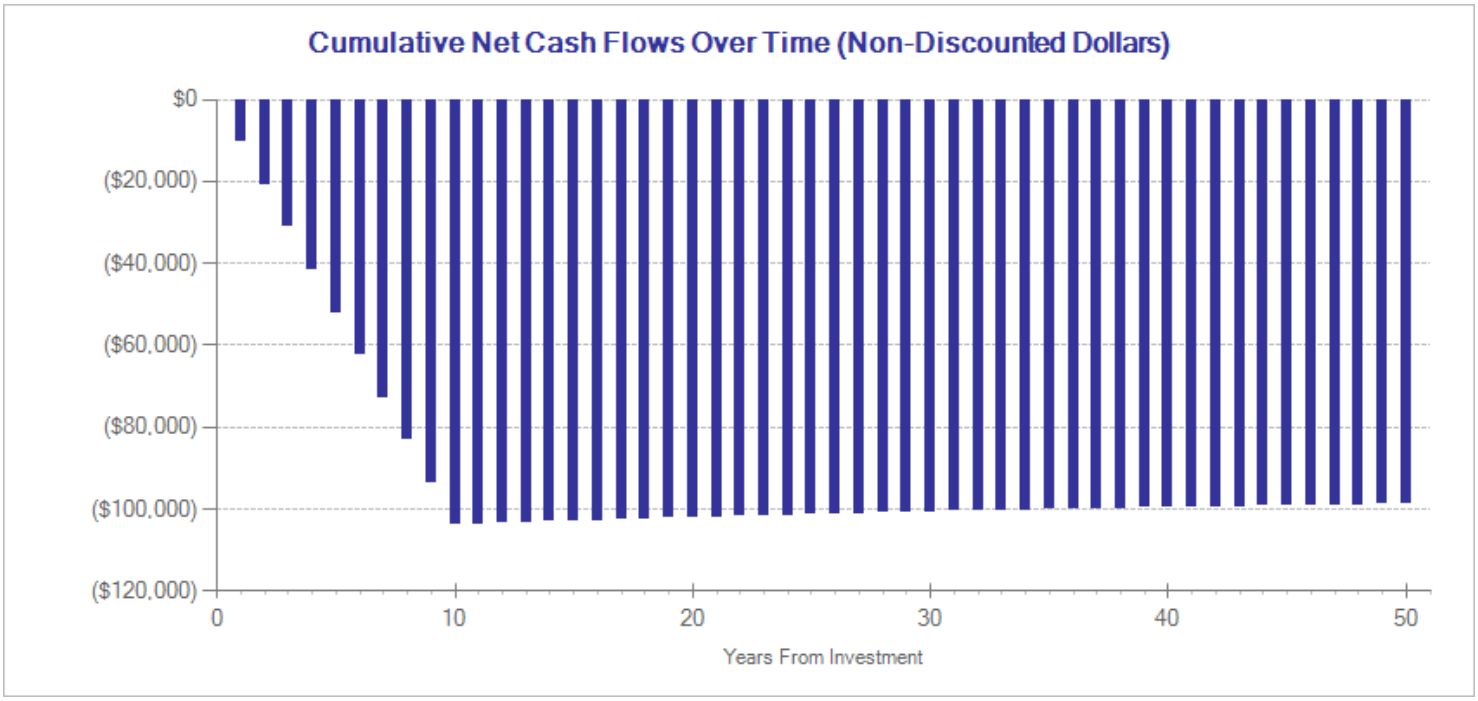

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.173	0.067	0.523	-0.043	0.067	15	-0.049	0.067	18
Disruptive behavior disorder symptoms	Primary	1	-0.198	0.067	0.148	-0.099	0.067	15	-0.014	0.067	18
Attention deficit hyperactivity disorder symptoms	Primary	1	-0.151	0.117	0.268	-0.075	0.117	15	-0.009	0.082	18
Hospitalization (general)	Primary	1	-0.177	0.067	0.195	-0.088	0.067	19	-0.088	0.067	29
Hospitalization (psychiatric)	Primary	1	0.006	0.171	0.964	0.003	0.171	19	0.002	0.171	24

For further information, contact:
(360) 586-2677, institute@wsipp.wa.gov

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Washington State Institute for Public Policy

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